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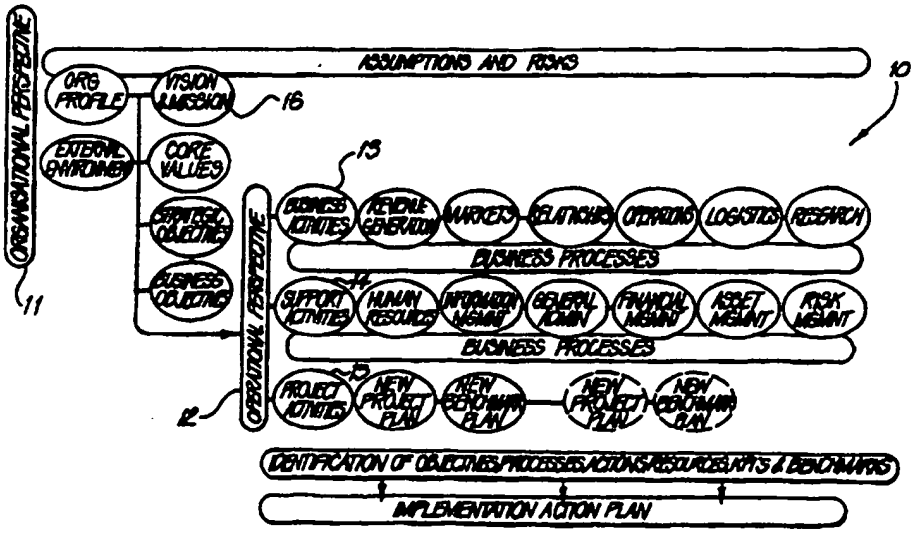

(57) Abstract

A computer system for strategic management in which an "entity database" of entities within an organisation hierarchy, and a plan for each desired entity is created. The structure of the organisation having an overall relationship (10) divided into an organisational and operational perspective (11, 12) respectively, with the latter further divided into fields of: business activities (13), support activities (14), and project activities (15). Both perspectives are also further divided into a number of plan sections (16). The system includes means for entering objective information relating to a strategic or business unit plan, means for entering key performance indicators (KPI's) for each objective. There being a list (62) of KPI's provided for each objective in a list (61); and means for matching the KPI's to the previously entered overall relevant key resource areas (KRA's).

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"Strategic Management System"

Field of the Invention

The present invention relates to improvements in systemising a range of management processes that are undertaken in the normal course of operating a business, organisation or a network of businesses or organisations.

Background of the Invention

In any business or organisation, there are a large number of tasks which involve the participation and coordination of individuals or groups of individuals at particular points in time or over a period of time to achieve maximum benefit, output or productivity of the group, utilising minimum resources.

Various computer packages available in the market place go part of the way to assisting in undertaking organisational planning and performance measurement. These packages are primarily directed at the achievement of certain goals within a given time schedule. Unfortunately, these packages do not allow an organisation to achieve a fully effective integrated strategy wherein their plans are fully aligned and active within the organisation. Further, these systems do not allow for instantaneous feedback by way of performance measurement including benchmarking tests and process improvement. Existing systems further separate the process of planning from those of measurement, benchmarking, process improvement and risk management. When such a separation takes place, substantial synergisms are lost, in that consistency across an organisation may be disrupted and access to shared information limited. For example, known systems may allow a manager in an organisation to undertake the formation of a strategic or business unit plan in isolation and without reference to any planning undertaken by colleagues elsewhere in the organisation or without reference to the strategic direction of the organisation. Further, existing systems are based on the collection and analysis of retrospective information and

are therefore only capable of developing organisational plans based on past data and are therefore retrospective in their management approach.

Further, current systems of organisational planning do not include information or reference to the business processes that are applied within an organisation. Current systems are further often based around financial targets and actions rather than an analysis of the business processes within the planning entity. In any large organisation, the processes that an organisation adopts are normally critical to its competitiveness. Further, it is to an organisation's advantage to increase the amount of value derived from its resources and processes. Such resources and processes are considered by most organisations as being essential for the improvement in performance of the organisation and may include the organisation re-engineering their processes to be of greater value. Current planning systems do not link business processes to organisational strategy.

Further, current systems do not align and analyse any assumptions that are made during organisational planning that may impact on current and future objections across the organisation. Although reference is often made to an assumption, there is generally no attempt in current systems to analyse the impact of assumptions and the possible impacts on and across an organisation, and its strategy, should the assumption prove to be invalid.

Further, current performance measurement systems normally only present simple figures in a spreadsheet or graphical format. No analysis is undertaken of any performance data with regard to its effect on other business units within an organisation and the effect on a range of specific performance indicators within the organisation.

Summary of the Invention

It is an object of the present invention to provide for an improved form of performance measurement and planning system through the integration of organisational

plans and performance measures so as to provide a substantial synergistic effect.

In accordance with an aspect of the present invention there is provided a computer system for performance measurement and planning, comprising:

organisation planning means for the entering, aligning and linking a number of different organisational plans;

indicator determination means for determining a series of indicators for said organisational plan;

benchmarking means for benchmarking said indicators against internal or external measurements or targets; and

wherein said organisational planning means, said indicator determination means and said benchmarking means are interlinked into a single co-ordinated system.

Preferably, there is provided a computer based framework which provides a fully integrated or linked approach to organisational planning, the measurement of performance and the undertaking of benchmarking of current organisational performance with other business units, organisations or groups of organisations.

Further, preferably all levels of an organisation are interlinked and use a consistent planning structure based on shared information. Hence, the workings of all levels of an organisation are networked together as are the business unit plans and measurement procedures to be conducted with reference to the overall strategy and all other tasks being undertaken by the organisation.

Further, measures throughout a plan hierarchy may be related to a common set of Key Result Areas. Business Objectives and their actions, where defined, may be linked to a common set of Strategic Objectives, and each objective may be in turn linked to a set of Strategic Objectives. This assists in developing a consistent approach to achieving the overall aims of an organisation and in promoting a strategic management approach within the organisation.

Further, the system of the present invention is

preferably capable of capturing performance data in real time thereby permitting a manager to upgrade and amend plans and other documents so that they are always current. Hence, organisational planning can be undertaken based on current data and the plans developed based on prospective views of an organisation. This introduces the concept of continuous planning as part of strategic management behaviour.

Further, the present invention preferably provides that any assumptions made during the planning process can be analysed to examine the possibility that they may prove incorrect and thereby provide an assessment of the likely impacts and actions that will be required of an organisation as a result of the impact of an invalid assumption. Preferably, the present invention also includes the identification of both responsibility and authority lines and accountability lines for specific actions.

Preferably, there is further provided tools to assist managers to analyse and model the performance of an organisation at multiple levels, thereby allowing managers to integrate performance analysis and modelling into their planning process.

Preferably the present invention allows for the flexibility to change organisational design and adopt to whatever configuration is needed to suit their changing needs including support of hierarchical, flattened and matrix organisation structures.

Further, there is preferably provided means for inserting benchmarking data with an organisation's current or actual data for analysis.

Preferably the indicator determination means includes means for determining a series of indicators for said organisational plan and graphically representing those measures, analysing those measures or modelling those measures to provide measurement information of past events or leading information about future events or alternatives available to the organisation.

The preferred embodiment of the present invention is designed to operate on a general purpose computer or a desktop personal computer either operating in isolation or included in a network of computers. The present invention could be implemented on a wide range of computers utilising standard and widely accepted programming languages and graphical user interfaces in the normal manner and in a way that data may be retrieved to produce reports or a text, graphical or in any another form.

The preferred embodiment of the present invention provides for a strategic management system that systemises and integrates the planning, measurement, project and benchmarking activities throughout an organisation, group or network. It further preferably provides a comprehensive and logical approach to understanding an organisation and how it functions, both in isolation and as an integral part of a large organisation. As a result, management is able to determine, integrate and direct strategy, in addition to directing change and performance within and external to the organisation.

Further, it focuses the key people in an organisation on any changes in the external business environment and the organic nature of an organisation. By integrating planning, measurement and benchmarking the management of an organisation is required to think and act holistically, and can adopt a culture of shared ownership and responsibility. As a result, more people will be willing to accept accountability and commitment to fulfilling the potential of the organisation. This forms the basis for strategic learning and strategic awareness, leading overtime to strategic behaviour.

The system is capable of either enforcing or optionally sharing information in any form of operational structure. In this regard it is omni-directional and has a capacity to share and transfer information between plans. Further, it has the capacity for information to

be accessed through a series of security checks. Information is able to be shared securely amongst a wider range of people within the organisation and for that information to be transferred within a hierarchical, matrix, linear or non-directional form. The capacity to share information and experience and undertake a range of self-assessment procedures and comparative exercises whether as part of the performance measurement function or the benchmarking function, encourages the use of strategic management behaviour and facilitates the process of organisational learning. This supports the concept of self assessment through performance measurement and benchmarking as part of strategic management behaviour.

Preferably the system is capable of being used in whole or in part and is flexible in the demands that it makes of the user. Similarly, it is flexible in satisfying the needs of the user and can be adapted to provide as much or as little functionality as is required. Further many parts of the system are non-reliant on other parts of the systems. In this regard the user is able to access and utilise as much or as little of the system as is required without limiting the desired functionality. In this regard the level of flexibility available to users allows the user to be self-determining in the quantity of the system that is accessed at any point in time or over time.

The increased synergism and awareness of the organisation and how it functions, both in isolation and as an integral part of a large group, provides a basis for the members of the organisation to work cooperatively towards best practice. Further, the preferred embodiment allows the organisation to choose the degree of management or autonomy and flexibility that suits its particular culture and corporate objectives. A resulting increase in strategic awareness and strategic behaviour through increased awareness often results. In this way, the preferred embodiment supports strategic learning and

other changed management and improvement initiatives that may be operating within the organisation. Preferably, senior managers set the overall direction for an organisation. However, people at all levels have a valid and essential role in participating in planning and contributing to the development of strategic and business objectives.

Further, the preferred embodiment collects appropriate internal data for measurement. Performance indicators are structured in the context of the organisation's overall strategy and objectives. Indicators of both financial and non-financial performance are preferably utilised to focus the organisation on areas central to its overall success. Preferably, the embodiment of the invention encourages continuous improvement by using internal and external benchmarks to ensure an organisation is focused on the best industry practice as measured in accordance with those benchmarks for the organisation's core processes and activities. The preferred embodiment can assist organisations to establish and communicate clear strategic objectives and effective measures of performance. The benchmarking capability supplements the communication process and ensures that managers are constantly aware of internal performance and how it compares with best industry practice.

In summary, the preferred embodiment can include or result in the following advantageous features:

1. The demonstration of leadership emanating from top management by clearly translating vision, values and strategy throughout the organisation and providing a consultative approach to organisational planning and performance measurement which in turn encourages ownership by the members of the organisation. Further, consistency is provided in communication, linking strategy, objectives and actions. The system supports a commitment to continuous improvement and best practice and allows for strategic management and strategic

learning.

2. The preferred embodiment provides an integrated and holistic approach that links strategy, objectives, processes and measurement with implementation structures. The identification of assumptions and risks and the analysis of the impact of invalid assumptions and project management are treated as integral parts of the planning and performance measurement processes in a prospective way.

3. The measurement of performance through key result areas and indicators provides a balance between financial and non-financial performance measures and allows cross-functional measures for supporting performance gap analysis. Utilisation of the cross-functional indicators eliminates conflicting measures across an organisation.

4. The benchmarking process is treated as integral part of strategic management, and the focus is on continuous improvement including identifying the gap between actual and best practice performance.

5. Analysis tools can be used while viewing plan.

6. An ability to share information up, down and across the organisation.

7. The development of plans may emanate from the objectives and needs from originating business units or from support units with the intention of achieving a "grand plan" for the organisation that considers the objectives and resource requirements of all parts of the organisation. This may be achieved in a way that is either individually based or consensus driven. The system has the flexibility for the organisation and/or its parts to define the methods for establishing plans and developing performance measurement and benchmarking protocols.

8. An ability for parts of an organisation to develop reports of performance measurement from a range of sources and to analyse those reports as well as to receive interpretative applied management information as

to performance.

9. An organisation can model information and develop alternative routes to improving performance by considering a series of interrelationships between performance measures within the organisation, business unit, team or at an individual level. In these respects the system can accommodate a variable range of complexity in the interrelationship and reports these interrelationships graphically or in narrative forms. Further, it can provide interpretative information as to the range of possible outcomes and relate these outcomes to a range of planning options. The system can then interpret these in the context of the impact of the outcome on the overall objectives of the organisation and provide a gauge as to the likelihood of the overall objective, whether at a business or strategic level, being met.

10. An ability to secure planning information and manage the security of information during the planning cycle whilst communicating broadly strategic imperatives and data.

11. An ability to manage the dynamic development process through the provision of structured and relevant information from a wide range of sources to the planning process. This is done by providing in real time and within a framework, information that considers the current and prospective issues that should be considered in the planning process facilitating an environment of strategic management and promoting the cultural environment that encourages organisational learning.

12. An ability to consider the resource requirements and the benefits that would be derived from setting and achieving an objective and measuring progress toward achieving the objective in an on-going environment.

Other advantages of the invention will be evident from the subsequent discussion of its preferred

embodiments.

Brief Description of the Drawings

Notwithstanding any other forms which may fall within the scope of the present invention, preferred forms of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Fig. 1 illustrates one form of construction of an entity interrelationship in accordance with the preferred embodiment;

Fig. 2 illustrates the overall organisational perspective utilised in the planning mode of the preferred embodiment;

Fig. 3 illustrates a table of planning sections and work areas to be constructed in each planning section in accordance with the preferred embodiment;

Fig. 4 illustrates one form of user interface for the entry of objectives into the planning database;

Fig. 5 illustrates one form of user interface for the entry of measure of data into the planning database of the preferred embodiment;

Fig. 6 illustrates a form of user interface for the entry of funding details into the plan database of the preferred embodiment;

Fig. 7 illustrates the process of risk analysis utilised in the preferred embodiment; and

Fig. 8 illustrates the process of locking information from one plan work area to another plan work area.

Description of the Preferred Embodiment

The preferred embodiment of the present invention is implemented on a network personal computer utilising standard operating systems, language and user interfaces. For example, the embodiment can be ideally implemented in Microsoft's Visual C++ (Trade Mark) utilising a standard windowing systems such as Microsoft Windows NT (Trade Mark) or Microsoft Windows 95 (Trade Mark).

The preferred embodiment is best implemented by

means of a number of large adaptable database and various user interface programs which are constructed, in the normal manner to create, view and modify the contents of the database.

Initially, an "entity database" is created of entities within an organisational hierarchy. The entity database is designed to have entities added and deleted at any time and for each new entity to be provided or added to the database. Preferably the entity database is constructed or amended only by a user having privileged access (such as a network administrator). A user is prompted, by means of the user interface, for various details on the entity. These details can include prompts for the name of the entity, a description of the entity's nature and function, a entity type description which can for example, include such descriptions as business unit, company, department, division, joint venture, team, individual etc. Further, the entity entry contains a description of its relationship to the other defined entities. The nature of possible relationships can be user defined in an arbitrary manner and can include colleague, competitor, customer, joint venture partner, land lord, subsidiary, employee etc. Finally, the entity entry includes details on the entity including such matters as addresses, phone numbers, contacts etc.

Turning now to Fig. 1, there is illustrated an example layout 1 of entities eg. 2 as defined at the end of the entity definition phase. Although the actual entities and their interrelationship is totally user definable within the entity database, the form of entity database as shown in Fig. 1 is based around the core entity of the organisation 3. This entity 3 is related to external supplier, customer and competitor entities and itself includes a number of department entities each of which has a manager, a number of sections and with each section having a number of employee persons.

The next step in the preferred embodiment is to create a plan for each desired entity within the

organisation.

Turning now to Fig. 2, the overall structure of an organisation is assumed to have an overall relationship as indicated 10. This can be divided into two main perspectives being the organisational perspectives 11 and the operational perspective 12. The operational perspective 12 is further divided into the fields of business activities 13, support activities 14 and project activities 15. Each of the perspective 11, 12 are further divided into a number of plan sections eg. 16 (vision and mission), the operation of the planned sections being described further hereinafter.

As mentioned previously, an interactive plan database is then constructed having one current plan for each desired entity (in addition to historical plans and "work in progress" plans stored as required).

Turning now to Fig. 3, there is illustrated the structure 20 of a single plan. The plan 20 includes, for each plan section (eg. vision and mission 21) a series of work areas 22 that need to be completed for that particular plan section, with a tick at the row - column intersection meaning that the column work area is required to be completed for the particular row plan section. The manner of building up a plan 20 is preferably "guided" by means of a user interface. However, ideally a user can enter the details for any plan section's work areas they require and the user interface preferably provides for such an adaptive form of data entry.

Taking first the plan work areas 22 for the entry of information, they are as preferably follows:

To Plan

The to plan work area differs from other areas in that it does not allow the entry of data but rather provides a list of prompts that the user should consider in working through each of the subsequent work areas for a particular plan section. Hence, the to plan work area provides a check list to ensure proper preparation for

the entry of data into the selected plan section. The information could be provided via an interactive user interface and preferably is designed to be updated and amended during the life of an organisation.

The prompts that should be considered in the planning process can be changed and accommodated to suit the needs of the user or groups of users in real time and to facilitate a highly interactive planning environment within an organisation. The use of amendable plans facilitates a dynamic planning environment within an organisation that promotes organisational learning and the development of a strategic management culture. The information that can be utilised within this task can be sourced from a variety of places and updated regularly.

Current Work Area

The current work area provides a location for the storage of information relating to the current position of the entity. Preferably this information is entered within the computer system in a free text flowing form and can include text, charts, graphic information imported from other Windows applications. This, of course, includes the importing of information from other plan areas and from the plans of other entities.

Intended Work Area

This area is provided in the same form as the current work area and is provided for the entry of details of the desired position at the end of the plan period.

Key Result Areas (KRA's)

The KRA's are only defined for the limited plan sections being the strategic objectives and the business objectives. The KRA's are designed to give the organisation a focal point for developing performance measures against the strategic and business objectives. Typical KRA's include customer satisfaction, business development, revenue growth, innovation etc. The KRA's are preferably short and "succinct" and designed to capture, in a few words, the essence of strategic focus.

For each KRA to be inserted in a list, its name and description are also preferably inserted.

Objectives

In the objective work area, entry of the objectives set for the particular plan section is provided. Preferably, details of the actions required to achieve each objective and the processes that will be affected by the objectives are also provided.

Turning now to Fig. 4, there is illustrated merely one form of user interface suitable for the entry of "objectives" information into the objectives database. The interface 40 includes a list of the currently defined objectives 41 with a currently selected objective having its name 42 and description 43 displayed. Means 44 is provided for adding further objectives. For each objective, a list 45 of actions required to achieve the objectives is provided with the ability to add 47, delete 48 or edit 49 the action information associated with the objective. Upon activation of the add action button 47 a further dialogue box can be provided for the addition of further actions, associated descriptions and various other relevant information such as target dates, responsibilities and authorisations as required, the information subsequently being stored with each action of a particular objective.

There is further provided 50 a list of the processes likely to be affected by the objective. The list of processes can be selected from an overall process type database which lists all the organisations business processes. A user can then select 51 processes from the overall global list which will be affected by a current objective.

Measures Work Area

In the measures work area, the key performance indicators (KPIs) for each objective are entered. These key performance indicators are then matched to the overall relevant key resource areas (KRAs) previously entered. Turning now to Fig. 5 there is illustrated one

form of user interface for entry of KPI measures. For each objective in the objectives list 61, the key performance indicators for that objective is listed 62. Means can be provided 63, 64 for the adding or deletion of key performance indicators from a global KPI list. For each KPI within the list 62, means is provided for data entry 63 specifying desired targets. Also, means is provided 64 for the entry of key resource indicators that are relevant to the key performance indicator selected.

Funding Work Area

The funding work area identifies the resources required to achieve each objective. Turning now to Fig. 6 there is illustrated one form of suitable user interface for the data entry of funding information. For each objective in the objectives list 71 a resource list 72 is provided in addition to means for the adding 73 and deletion 74 and editing 75 of the resource details. Various total information can be provided and further, data entry area 77 can be provided for the adding 78 and deleting 79 of incurred expenditures.

Risk Work Area

The risk work area is used to detail the assumptions and perceived risks for each plan section. It provides a form of scenario analysis that is preferably capable of addressing impacts of invalid assumptions and the actions required for planning for such impacts. The risk area preferably operates by perceiving an organisations internal and external operating environment at any point in time. Preferably, the risks work area allows the construction of a hierarchical structure of assumptions and risk implications. Essentially, the risks work area can comprise a list of assumptions with each assumption having a structure 90 as illustrated in Fig. 7. For each new assumption 91, a user interface is provided for initially setting out the name and description of the assumption. Next, means as provided for attaching a list of new identifiable risks 92 for each new assumption. Preferably, an arbitrary number of new identifiable risks

can be provided with again a name and description of the resultant identifiable risk also being provided. For each new identifiable risk eg. 93 there is preferably provided means for entering a list of risk impacts eg. 94 again in a name and description format. A probable date on which the risk may also be provided. Additionally, there is provided a means for relating the risk impacts to a list of relevant entities that will be impacted. Optionally, a list of performance measures that may be affected by the risk should it materialise may be provided. For each risk impact 94 there is preferably provided a means for entering a list of new risk actions 95 which allow for the entry of various actions to be taken as a result of the risks impacts including a name and description of the action, a responsible entity and an impacted plan section. Hence, the overall risk work area results in a hierarchical structure 90 that can include as much, or as little detail as required. In this way, a database of assumptions, their associated risks, their likely impacts and what actions should be taken can be constructed in advance allowing for a more holistic approach to risk assessment.

Returning now to Fig. 3, the various work areas are to be completed for each plan section eg. 21 as required. The plan sections are themselves divided into organisational and operational perspective with the organisational perspective recording the organisational profile, external environment, vision and mission, core values, strategic objectives and business objectives.

Where the entity that is having a plan created for it is below the organisational entity, this information can be directly inherited from the plan for an organisational entity. Where the entity is inheriting information from another plan, that information can be preferably transferred or shared from any other plan in the structure. Information that is transferred or shared can be done so either in whole or in part and can be transferred to a specific plan or to a number of plans.

Preferably, the entry of information into each work area is proceeded by the "to plan" section which details how to go about the entry process and what factors should be considered. This can be automated by automatically following the relationship of subordination to fill out the organisational perspective of subordinate entities.

Turning now to each plan section of Fig. 3, the organisational profile contains historical aspects of the organisation, the external environment provides an overview of the external operating environment and the factors that may impact on the organisation. In the risk work area of the external environment, the risks associated with the external environment assumptions that should be analysed. In the vision and mission section 21, a concise statement of the organisations business purpose should be set out and again the risks associated with the mission assumptions should be set out.

In respect of the core values section, these values can be documented in the current work area. Further, utilising the objectives, measures and funding work areas, documentation of how the core values are to be understood and demonstrated throughout the organisation and the extent to which the core values are shared can be monitored and assessed.

In respect of strategic objectives, the strategic objectives of the organisation are set out. This includes the recording of the organisations key result areas (KRAs) with a similar process being undertaken for the business objectives section.

Next, in respect of the operational perspective, records of the internal operating environment and its objectives and actions are kept. Preferably, there is a distinction made between those plan sections that directly support the organisations customers (the business activities) and those plan sections that indirectly support the organisation's customers (support activities). In respect of the various business activities, the work areas are utilised to enter details

in respect of the following:

* Revenu - sources of revenue for the organisation including sales, investment, grants, programs or funds, asset disposal.

* Markets - managing sources of revenue and managing produces and services. Entry of the details of the advertising and promotion of the organisation and its products, services, pricing, location, market research and business development is provided.

* Relationships - managing internal and external relationships, including staff, unions, customers, suppliers, capital markets, stockholders and shareholders, regulatory agencies, government etc.

* Operations - includes activities associated with the organisation of resources for the production or the delivery or products and services.

* Logistics - includes inbound and outbound activities such as purchasing, inventory management, transport and storage.

* Research - includes all research and development activities up to the point of commercialisation. These include the development of new products and services, basic and applied research and the application of innovation to products and procedures. For some organisations such as universities and research centres, research activities may be a key product or service.

In respect of the support activities being those activities which indirectly support the organisation's customers, the following details are entered in each plan section:

* Human Resources - the organisation and deployment of a labour force. This includes remuneration, performance and reward schemes, training and development, recruitment and separation procedures, change management, occupational health and safety etc.

* Information Management - the organisation and facilitation of information. This includes technology, systems, hardware, software, platforms, robotics,

reporting protocols, data management, consultation and support.

* Financial Management - budgeting, accounting, auditing, risk management.

* Asset Management - managing the assets of the business required to produce revenue or provide a service. This includes acquisition and management of capital, and investment in land, buildings and equipment; including, asset utilisation, measurement, maintenance and disposal.

* Risk Management - the identification and management of all categories of business and personal risk.

There is also provided the plan sections for project activities including a project program, a new project plan and a new benchmark plan section area. The preferred embodiment treats the aggregation and funding of projects as integral to the planning and performance measurement process and applies a number of the work areas to each project activity.

The project program plan section provides a frame work for identifying, proving and managing the organisations development and benchmark projects in line with strategy. The new project plan section provides a management view of the scope of work required, background to the project and an identification of those persons sponsoring the project and forming the projects with the relevant details being entered within the corresponding work areas. The new benchmark plan section allows for the planning of new benchmark structures to be submitted for relevant the authorisation.

The performance measurement process can proceed for each entity by the extraction of the entity's indicators entered as part of each plan section's "measures" work area. These indicators can be collected together in a table. Preferably, a separate database of indicators is kept for each entity thereby constructing a performance database.

Preferably, the performance database includes means for entering measurement data for each of the indicators where required. The performance data can be defined to be entered over arbitrary time intervals however, monthly time intervals are suitable.

Preferably, there is also provided a user interface to the performance database for the construction and graphing of the entered performance figures including means for constructing derived indicators which can be constructed from an arbitrary user defined factored combination of the entity's performance indicators, with full graphing and reporting facilities being provided. The user interface preferably also allowing the construction of models to test, and examine hypotheses as required. Alternatively, the performance measurements and data can be written out to a file and interactively interrogated by means of standard accounting software packages such as Microsoft Excel.

The preferred embodiment also preferably provides for the ability to benchmark one of an entity's indicators against any of the indicators of any other entity defined within the entity database. Upon entry of the data associated with each of the selected indicators, graphing and reporting functions are provided for the production of output reports highlighting the interaction of the indicators selected.

It would be understood that the preferred embodiment provides only a skeleton which can be utilised and adopted by an organisation to, over time, customise the application in accordance with requirements. In particular, each organisation will have its own reporting and analysis requirements depending on the functions carried out by the organisation. The preferred embodiment however, provides an integrated planning, performance measurement and benchmarking system which can be adapted to the needs of the organisation.

Further, the organisation's senior management can develop, over time, a series of benchmarks and indicators

which they wish to utilise as prime indicators of the organisation's performance.

Further, when utilised in a computer networked environment by multiple users, the ability to lock data so that it can not be changed or perhaps even viewed by other parties is preferably provided. It will be evident that the preferred embodiment has particular application in a networked environment where multiple users can interactively edit their own plans. In a refinement of the preferred embodiment, there is provided the ability for one entity to lock data from, say entity A's work area into the corresponding area of entity B's work area. An example of this process is illustrated in Fig. 8 wherein the revenue plan section of entity B 100 includes, as normal, a current work area where free flowing text is entered. A "locking" user interface can then be provided for entity B 101 to lock the contents of entity A's revenue current work area 102 into the entity B's revenue current work area 100. In this way, entity A can ensure that entity B is aware of all of entity A's consideration on that particular issue in formulating its own current work area. Preferably, any updating of the entity A revenue current work area is further reflected in the entity B revenue current work area as well. In this way, entity B is encouraged to take a more holistic approach in its planning process. Preferably, in a multi-user organisation environment, there is provided the ability to arbitrarily lock information from work areas of one entity's plan to another entity's plan. In particular, locking the current, intended and objective work areas have been found to be particularly useful when utilising this feature.

As a further refinement, when operating in a multi-user environment, there is preferably provided the usual security mechanisms, popular in modern operating systems of allowing each user to set security levels for the plan sections of their responsibility. This can include allowing or barring other users from reading or altering

information contained in each relevant plan section.

It would be appreciated by those persons skilled in the art of computer programming that numerous variations and/or modifications may be made to the description as previously described particularly in the customisation of the user interfaces to the various databases and the customisation of the database in accordance with local requirements. These modifications and variations would not depart from the spiritual scope of the invention as broadly described. The present discussion therefore of the preferred embodiment is to be considered in all respects to be illustrative and not restrictive.

CLAIMS

1. A computer system for strategic management including comprising:

organisational planning means for the entering of a strategic, business unit or other plan;

indicator determination means for determining a series of indicators for said plan;

benchmarking means for benchmarking said indicators against internal or external targets; and

wherein said organisational planning means, said indicator determination means and said benchmarking means are interlinked into a single co-ordinated system.

2. A computer system as claimed in claim 1 further comprising assumption analysis means for measuring the impact of assumption on the performance of an organisation.

3. A computer system as claimed in claim 2 wherein said assumption analysis means includes means for measuring the meeting of an assumption or the failure to meet an assumption.

4. A computer system as claimed in any preceding claim further comprising modelling means to model expected outcomes and determine their impact on said organisational plan, said indicators and/or said benchmarking.

5. A computer system as claimed in any preceding claim wherein at least one of said organisational planning means, said indicator means or said benchmarking means includes a series of templates for a user to fill out.

6. A computer system as claimed in any preceding claim wherein said system allows for simultaneous access by multiple users.

7. A computer system as claimed in any preceding claim wherein said system operates in an integrated form across all levels of an organisation.

8. A computer system as claimed in claim 7 wherein said system allows for graphing of performance of said

organisation at multiple levels within the organisation.

9. A computer system as claimed in claim 7 wherein individuals at different levels within said organisation have different capabilities of access to said computer system.

10. A computer system as claimed in any preceding claim wherein said indicator determination means captures performance data in real time.

11. A computer system as claimed in any preceding claim wherein said business organisational means is able to interactively amend said organisational plan.

12. A computer system as claimed in any preceding claims wherein said benchmarking means allows for the import of external data or the export of internal data of said system.

13. A computer system as claimed in any preceding claim wherein said indicators include financial or non-financial indicators.

14. A computer system as claimed in any preceding claim wherein said plans are able to be accessed by all entities within an organisation.

15. A computer system as claimed in any preceding claim wherein funding of said plan is integrally linked to the objectives of said plan.

16. A computer system as claimed in any preceding claim wherein there is provided means for entry of objectives and processes of an organisation in terms of their demand on resources and their benefit to the organisation.

17. A computer system as claimed in any preceding claim wherein an analysis of a performance indicator and the interpretation of that indicator can be undertaken by the system.

18. A computer system as claimed in any preceding claim wherein information can be transferred or shared up, down, or sideways within a planning and performance measurement structures that may or may not

reflect the organisational structure of an organisation by may be useful for the communication of information either optionally or forcibly.

19. A computer system as claimed in any preceding claim wherein the security of the system is sufficiently flexible that an individual or group of individuals may determine who may or may not access specific information within the computer system whether in whole or in part.

20. A computer system as claimed in any preceding claim wherein the application and interpretation of data is provided to the user of the data in a way that allows the user to make an informed business decision based on presentation of either qualitative or quantitative performance information.

21. A computer system as claimed in any preceding claim wherein the application of information to a model may allow the user to develop, either through a narrative or graphically, a plan for achieving a goal or target at some time in the future that consider a complex range of business factors.

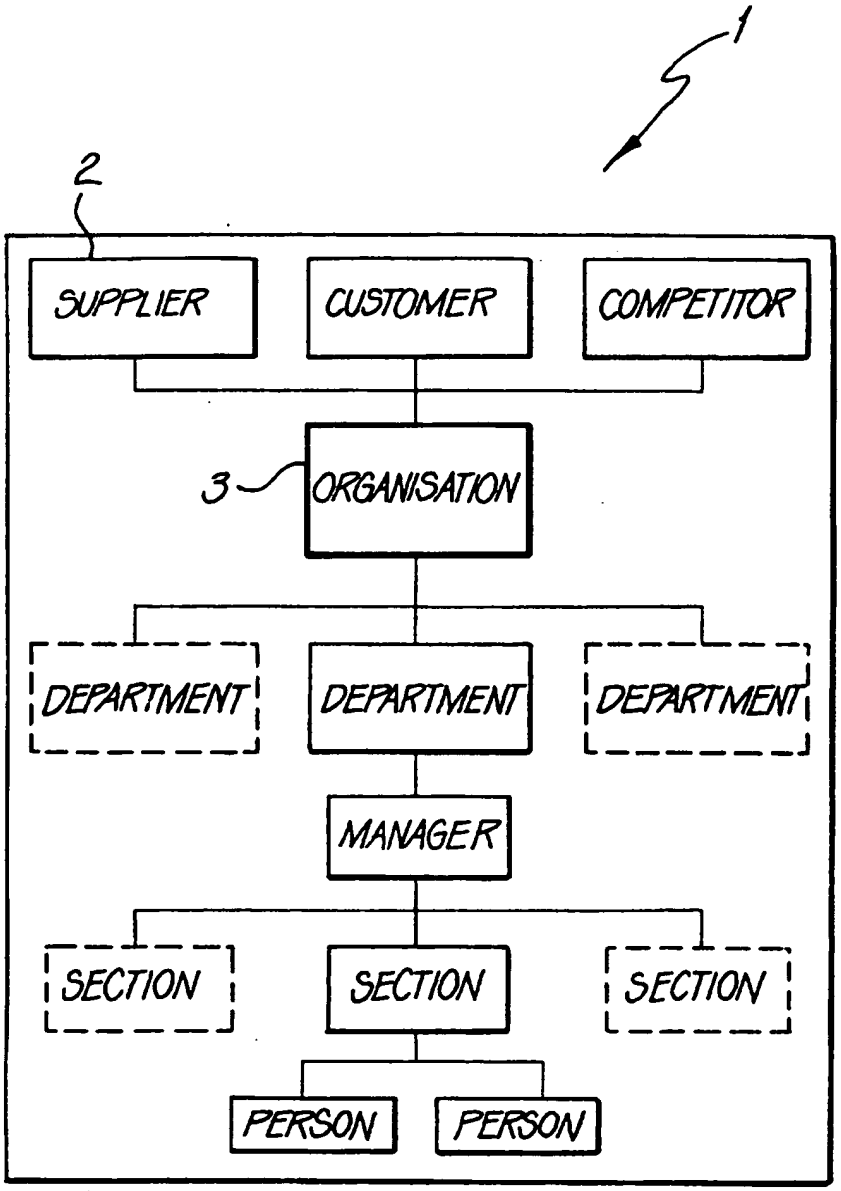
1
2
SUPPLIER
CUSTOMER
COMPETITOR
3
ORGANISATION
DEPARTMENT
DEPARTMENT
DEPARTMENT
MANAGER
SECTION
SECTION
SECTION
PERSON
PERSON

FIG. 1

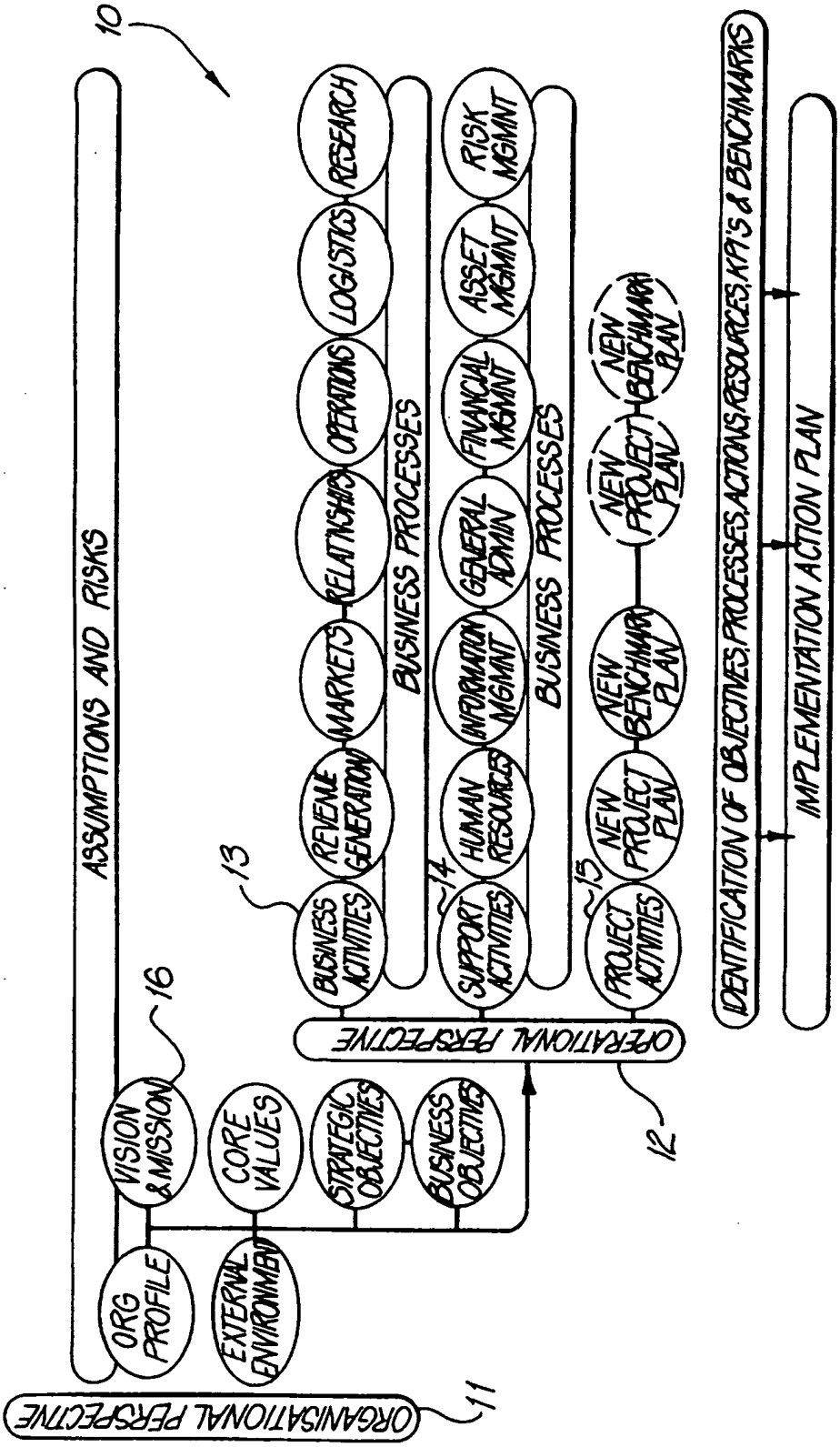
10
ASSUMPTIONS AND RISKS
ORGANISATIONAL PERSPECTIVE
11
ORG PROFILE
EXTERNAL ENVIRONMENT
VISION & MISSION
16
CORE VALUES
STRATEGIC OBJECTIVES
BUSINESS OBJECTIVES
OPERATIONAL PERSPECTIVE
12
13
BUSINESS ACTIVITIES
REVENUE GENERATION
MARKETS
RELATIONSHIPS
OPERATIONS
LOGISTICS
RESEARCH
BUSINESS PROCESSES
14
SUPPORT ACTIVITIES
HUMAN RESOURCES
INFORMATION MGMNT
GENERAL ADMIN
FINANCIAL MGMNT
ASSET MGMNT
RISK MGMNT
BUSINESS PROCESSES
15
PROJECT ACTIVITIES
NEW PROJECT PLAN
NEW BENCHMARK PLAN
NEW PROJECT PLAN
NEW BENCHMARK PLAN
IDENTIFICATION OF OBJECTIVES, PROCESSES, ACTIONS, RESOURCES, KPI'S & BENCHMARKS
IMPLEMENTATION ACTION PLAN

FIG. 2

WORK AREA.	TO PLAN.	CURRENT.	INTENDED.	KRA.	OBJECTIVES.	MEASURES.	FUNDING.	RISKS.
ORGANISATIONAL PERSPECTIVE								
ORGANISATIONAL PROFILE	✓	✓	✓					
EXTERNAL ENVIRONMENT	✓	✓						✓
VISION & MISSION	✓	✓						✓
CORE VALUES	✓	✓			✓	✓	✓	✓
STRATEGIC OBJECTIVES	✓			✓	✓	✓		✓
BUSINESS OBJECTIVES	✓			✓	✓	✓		✓
OPERATIONAL PERSPECTIVE BUSINESS ACTIVITIES:								
REVENUE	✓	✓	✓		✓	✓	✓	✓
MARKETS	✓	✓	✓		✓	✓	✓	✓
RELATIONSHIPS	✓	✓	✓		✓	✓	✓	✓
OPERATIONS	✓	✓	✓		✓	✓	✓	✓
LOGISTICS	✓	✓	✓		✓	✓	✓	✓
RESEARCH	✓	✓	✓		✓	✓	✓	✓
SUPPORT ACTIVITIES								
HUMAN RESOURCE	✓	✓	✓		✓	✓	✓	✓
INFORMATION MANAGEMENT	✓	✓	✓		✓	✓	✓	✓
GENERAL ADMINISTRATION	✓	✓	✓		✓	✓	✓	✓
FINANCIAL MANAGEMENT	✓	✓	✓		✓	✓	✓	✓
ASSET MANAGEMENT	✓	✓	✓		✓	✓	✓	✓
RISK MANAGEMENT	✓	✓	✓		✓	✓	✓	✓
PROJECT ACTIVITIES								
PROJECT PROGRAM	✓	✓	✓		✓		✓	✓
NEW PROJECT PLAN	✓	✓			✓		✓	✓
NEW BENCHMARK PLAN	✓	✓			✓		✓	✓

21 22 20

FIG. 3

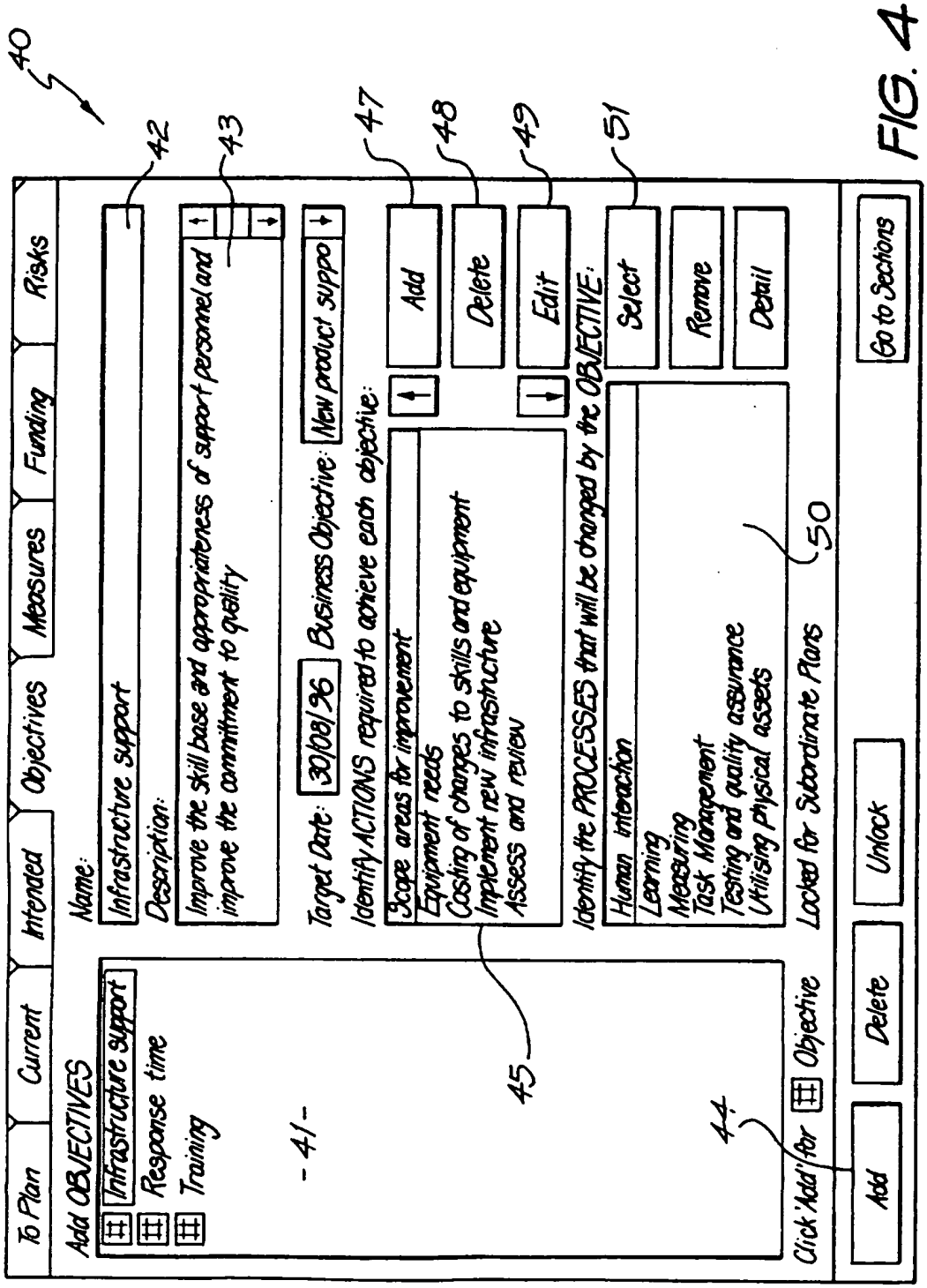
40
To Plan
Current
Intended
Objectives
Measures
Funding
Risks
Add OBJECTIVES
Infrastructure support
Response time
Training
- 41 -
Name:
Infrastructure support
42
Description:
Improve the skill base and appropriateness of support personnel and improve the commitment to quality
43
Target Date: 30/08/96
Business Objective: New product suppo
47
Identify ACTIONS required to achieve each objective:
Scope areas for improvement
Equipment needs
Costing of changes to skills and equipment
Implement new infrastructure
Assess and review
45
Add
48
Delete
49
Edit
Identify the PROCESSES that will be changed by the OBJECTIVE:
51
Human interaction
Learning
Measuring
Task Management
Testing and quality assurance
Utilising physical assets
Select
Remove
Detail
50
Click 'Add' for Objective
44
Locked for Subordinate Plans
Add
Delete
Unlock
Go to Sections

FIG. 4

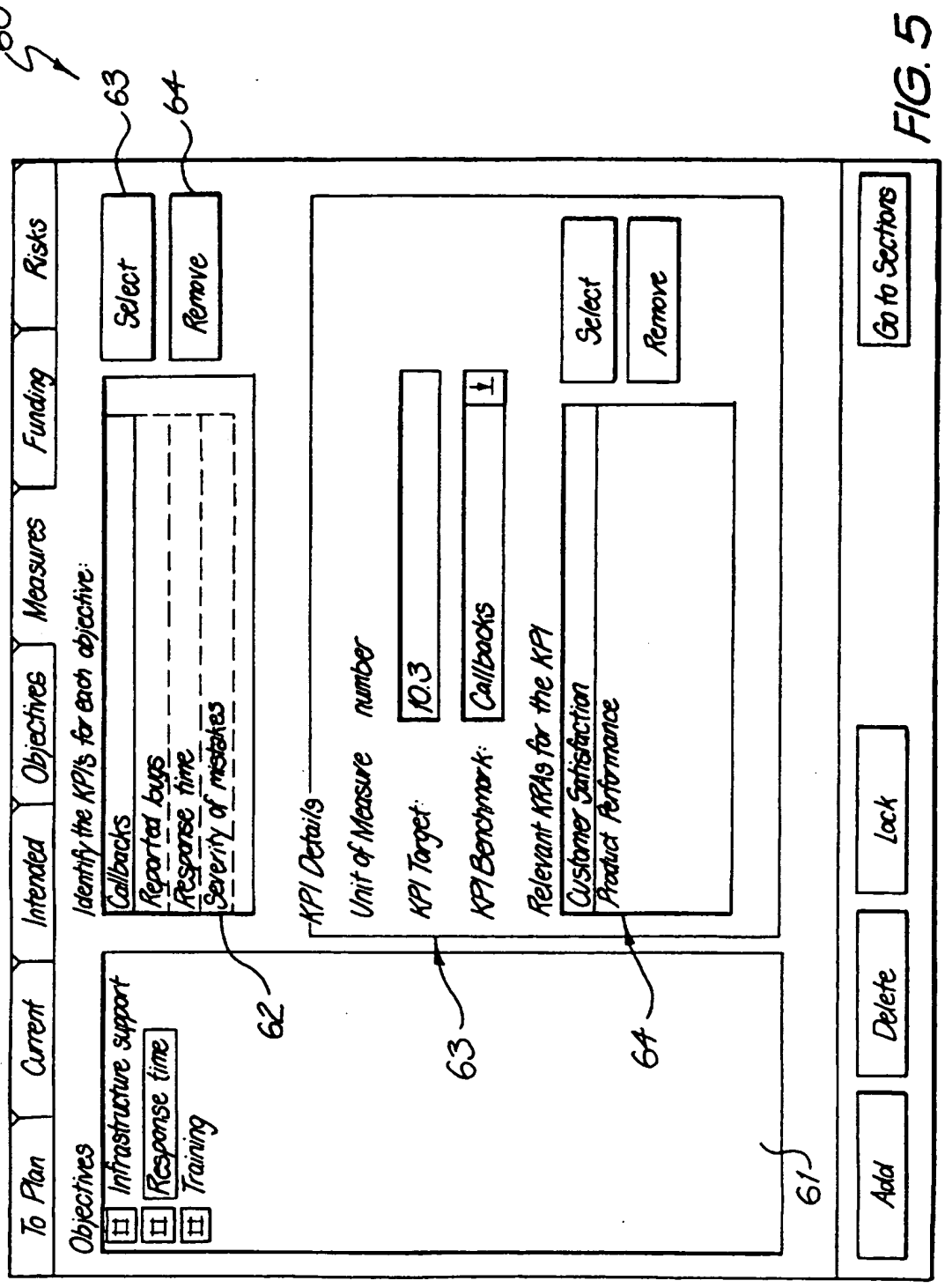
60
63
64
To Plan
Current
Intended
Objectives
Measures
Funding
Risks
Objectives
Infrastructure support
Response time
Training
Identify the KPI's for each objective:
Callbacks
Reported bugs
Response time
Severity of mistakes
Select
Remove
62
KPI Details
Unit of Measure number
KPI Target: 10.3
KPI Benchmark: Callbacks
1
63
Relevant KRAs for the KPI
Customer Satisfaction
Product Performance
Select
Remove
64
61
Add
Delete
Lock
Go to Sectors

FIG. 5

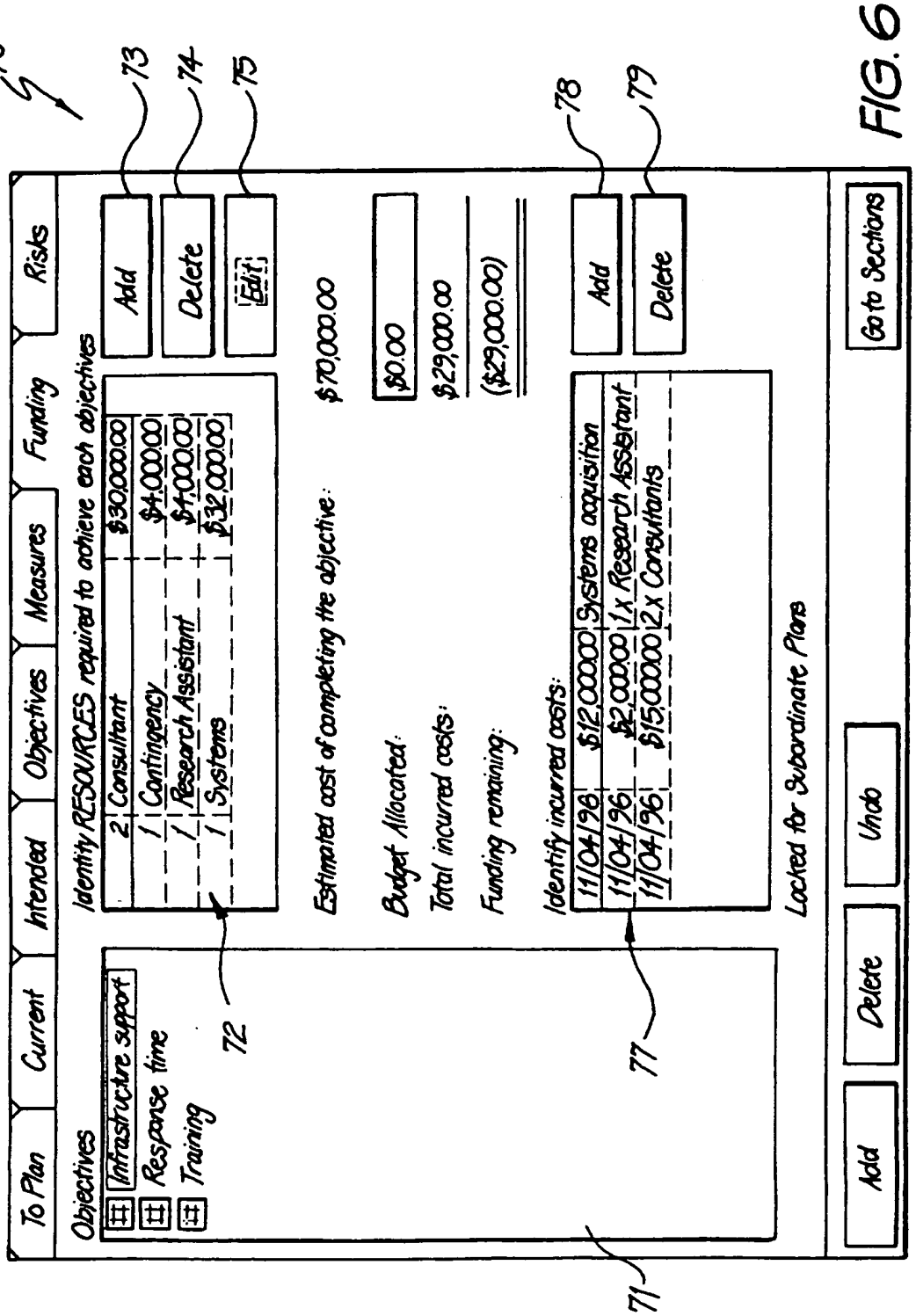
70
To Plan
Current
Intended
Objectives
Measures
Funding
Risks
Objectives
Infrastructure support
Response time
Training
Identify RESOURCES required to achieve each objectives
2 Consultant $30,000.00
1 Contingency $4,000.00
1 Research Assistant $1,000.00
1 Systems $32,000.00
Add
Delete
Edit
73
74
75
72
Estimated cost of completing the objective: $70,000.00
Budget Allocated: $0.00
Total incurred costs: $29,000.00
Funding remaining: ($29,000.00)
Identify incurred costs:
11/04/96 $12,000.00 Systems acquisition
11/04/96 $2,000.00 1 x Research Assistant
11/04/96 $15,000.00 2 x Consultants
78
79
77
Add
Delete
Locked for Subordinate Plans
71
Add
Delete
Undo
Go to Sections

FIG. 6

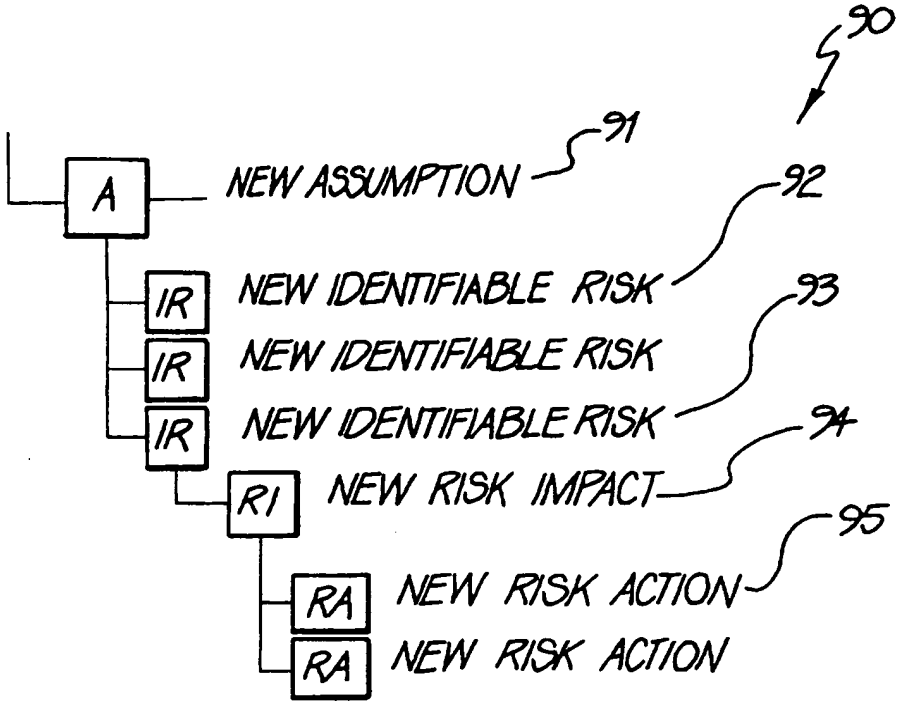
90
91
A
NEW ASSUMPTION
92
IR
NEW IDENTIFIABLE RISK
IR
NEW IDENTIFIABLE RISK
93
IR
NEW IDENTIFIABLE RISK
94
RI
NEW RISK IMPACT
95
RA
NEW RISK ACTION
RA
NEW RISK ACTION

FIG. 7

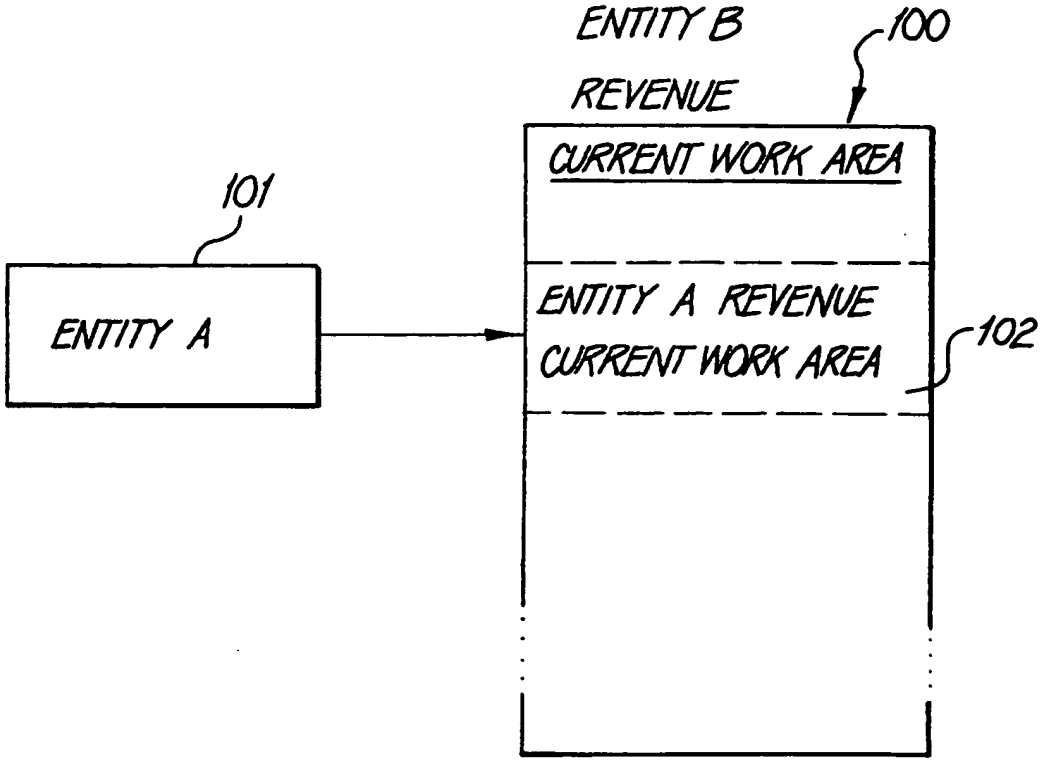
ENTITY B
REVENUE
100
CURRENT WORK AREA
101
ENTITY A
ENTITY A REVENUE
CURRENT WORK AREA
102

FIG. 8

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 97/00104

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl[6]: G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC: G06F 17/60, 17/30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
AU: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DERWENT: BENCHMARK; PLAN# OR PLANNING; PLAN: AND MANAG:; BUSINE: AND MANAG:; PLAN: AND BUSINE:; TARGET: AND ORGANIZE:; TARGETS AND ORGANIZE:; INDIC:

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	WO 9630852 A (HOGAN SYSTEMS INC) 3 October 1996	
P,X	whole document	1-21
P,Y	whole document	1-21
	US 5303147 A (OBA et. al.) 12 April 1994	
Y	whole document	1-21
	US 5406477 A (HARHEN) 11 April 1994	
X	Col. 1-10, 12-16	1,2,4-6,13,17,20,21
Y	whole document	15,16,18

☒ Further documents are listed in the continuation of Box C ☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 April 1997	22 APR 1997
Name and mailing address of the ISA/AU AUSTRALIAN INDUSTRIAL PROPERTY ORGANISATION PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No.: (06) 285 3929	Authorized officer C. Berko Telephone No.: (06) 283 2169

Form PCT/ISA/210 (second sheet) (July 1992) copamh

INTERNATIONAL SEARCH REP RT

International Application No.
PCT/AU 97/00104

C (Continuation) **DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N
X,Y	US 5331545 A (YAJIMA et.al.) 19 July 1994 whole document	1,6
Y	WO 9207318 A (IEX CORPORATION) 30 April 1992 pages 1 - 15, page 22 line 4 to page 23 line 17, abstract, figs	1,5,10
Y	US 5459656 A (FIELDS et. al.) 17 October 1995 col. 1 to col. 5 line 7, abstract, figs	1,4,8
Y	US 5303166 A (AMALFITANO et. al.) whole document	1,5,6
Y	US 5172313 A (SCHUMACHER) 15 December 1992 abstract, claims, figs 1 and 2	1,6
Y	GB 2242292 A (MIYAGO Co. LTD) 25 September 1991 page 1 to page 3 line 20	1
P,Y	WO 9610793 A (YUFIK) 11 April 1996 page 17, Figs 1-4 and relevant text, abstract	16

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.
PCT/AU 97/00104

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
WO	9630852	AU	54352/96				
US	5303147	JP	3111969				
US	5331545	JP	5189450				
WO	9207318	AU	89076/91	US	5185780		
US	5172313	EP	319838	JP	1265356	US	4942527
GB	2242292	JP	3268098				
WO	9610793	US	5586219				

END OF ANNEX